

WHAT IS CLAIMED IS:

1. A modular computer system formed by connecting a processing module having a processor mounted thereon and a plurality of I/O modules in a stacked form via connectors forming a bus, wherein

each of said I/O modules comprises:

a module exclusive selection part for activating a module select signal input from a terminal in a position on a processing module side connector, the position being the same for said I/O modules; and

an ID output part for outputting identification information of its own I/O module to a predetermined terminal on the connector on the basis of a module select activate signal output from said module exclusive selection part.

2. The modular computer system according to claim 1, wherein said processing module comprises:

a module select signal output part for outputting the module select signal to a connector terminal to which the I/O module is connected; and

an ID input part for taking in the identification information output to the predetermined terminal on the connector, and

said module select signal output part outputs the module select signal successively to the I/O modules connected to the processing module, and

said ID input part recognizes the I/O modules and the identification information in association in

accordance with an output order of the module select signal.

3. The modular computer system according to claim 2, wherein in accordance with the association of the I/O modules with the identification information, said processing module reads preset bus configuration parameters and device drivers of the I/O modules from a memory, and accesses the I/O modules.

4. A modular computer system formed by connecting a processing module having a processor mounted thereon and a plurality of I/O modules in a stacked form via connectors forming a bus, wherein each of said I/O modules comprises:
a module exclusive selection part for determining whether a module select signal input from a processing module side connector is a signal that selects its own module, outputting an activate signal for the module select signal, when the module select signal is the signal that selects its own module, and transmitting the module select signal to a terminal that is included in terminals on a connector opposite to the processing module and that is in the same position as that of a terminal on the processing module side connector supplied with the signal that selects its own module, when the module select signal input from the processing module side connector is a signal that selects another module; and

an ID output part for outputting

identification information of its own I/O module to a predetermined terminal on the processing module side connector on the basis of the activate signal.

5. The modular computer system according to claim 4, wherein

said module exclusive selection part has a plurality of wires connected to a plurality of connector terminals on the processing module side,

one of the wires is connected to said ID output part, and

one of other wires is connected to a terminal that is included in a plurality of connector terminals on a side opposite to the processing module and that is in the same position as that of the connector terminal supplied with a module select signal that selects its own module.

6. The modular computer system according to claim 4, wherein said module exclusive selection part is formed by connecting a D terminal of a D type flip-flop to one of connector terminals on the processing module side, connecting a Q output terminal of said D type flip-flop to said ID output part and to a terminal that is included in connector terminals on a side opposite to the processing module and that is in the same position as that of the connector terminal to which the D terminal is connected, and connecting a clock terminal of said D type flip-flop to a terminal to which connector terminals on the processing module

side and the side opposite to the processing module are connected in common.

7. The modular computer system according to claim 6, wherein said processing module drives the connector terminal to which the clock terminal is connected, with a clock signal, and drives the connector terminal to which the D terminal is connected, with an enable signal.

8. The modular computer system according to claim 4, wherein said ID output part comprises:

an ID generation part for generating identification information of its own module; and
an output enable part for outputting the identification information generated by said ID generation part to a predetermined terminal on the connector.

9. The modular computer system according to claim 8, wherein said ID output part comprises gate elements that are supplied with the identification information as inputs thereof and that are enabled by the activate signal.

10. The modular computer system according to claim 8, wherein said ID generation part generates the identification information as a serial signal on the basis of the activate signal and a clock signal.

11. The modular computer system according to claim 4, wherein said ID output part is formed by connecting wires driven by the activate signal to a

plurality of predetermined terminals on the connector via PN-junction elements according to the identification information.

12. The modular computer system according to claim 4, wherein said processing module comprises:

a module select signal output part for outputting the module select signal to a connector terminal to which the I/O module is connected; and

an ID input part for taking in the identification information output to the predetermined terminal on the connector, and

said module select signal output part outputs the module select signal successively to the I/O modules connected to the processing module, and

said ID input part recognizes the I/O modules and the identification information in association in accordance with an output order of the module select signal.

13. The modular computer system according to claim 12, wherein in accordance with the association of the I/O modules with the identification information, said processing module reads preset bus configuration parameters and device drivers of the I/O modules from a memory, and accesses the I/O modules.

14. I/O modules connected in a stacked form to a processing module via connectors forming a bus, each of said I/O modules comprising:

a module exclusive selection part for

activating a module select signal input from a terminal in a position on a processing module side connector, the position being the same for said I/O modules; and

an ID output part for outputting identification information of its own I/O module to a predetermined terminal on the connector on the basis of a module select activate signal output from said module exclusive selection part.

15. The I/O modules according to claim 14, wherein

said module exclusive selection part has a plurality of wires connected to a connector on a first side,

one of the wires is connected to said ID output part, and

one of other wires is connected to a terminal that is included in a plurality of terminals on a connector on a second side and that is in the same position as that of the terminal on the connector on the first side to which the wire connected to said ID output part is connected.

16. The I/O modules according to claim 14, wherein said module exclusive selection part is formed by connecting a D terminal of a D type flip-flop to one of connector terminals on the processing module side, connecting a Q output terminal of said D type flip-flop to said ID output part and to a terminal that is included in connector terminals on a side opposite to

the processing module and that is in the same position as that of the connector terminal to which the D terminal is connected, and connecting a clock terminal of said D type flip-flop to a terminal to which connector terminals on the processing module side and the side opposite to the processing module are connected in common.

17. The I/O modules according to claim 16, wherein said processing module drives the connector terminal to which the clock terminal is connected, with a clock signal, and drives the connector terminal to which the D terminal is connected, with an enable signal.

18. The I/O modules according to claim 14, wherein said ID output part comprises:

an ID generation part for generating identification information of its own module; and

an output enable part for outputting the identification information generated by said ID generation part to a predetermined terminal on the connector.

19. The I/O modules according to claim 18, wherein said ID output part comprises gate elements that are supplied with the identification information as inputs thereof and that are enabled by the activate signal.

20. The I/O modules according to claim 14, wherein said ID output part is formed by connecting

wires driven by the activate signal to a plurality of predetermined terminals on the connector via PN-junction elements according to the identification information.